

Boston & Providence Railroad:
Canton Viaduct
Neponset St. at East Branch
of Neponset River
Canton
Norfolk County
Massachusetts

HAER No. MA-27

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PHOTOGRAPHS

HISTORICAL & DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D. C. 20240

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HISTORIC AMERICAN ENGINEERING RECORD

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Boston & Providence Railroad: Canton Viaduct

MA-27

Location: Neponset Street at East Branch of Neponset River
Canton, Norfolk County, Massachusetts

UTM: 19.321980.4669340
Quad: Norwood

Date of Construction: 1835

Builder/Designer: Capt. William Gibbs McNeill, Engineer

Original Use: Railroad Bridge

Present Use: Railroad Bridge

Significance: The Canton Viaduct is a granite structure 615 feet in length, 22 feet in width, and 70 feet above the surface of the Neponset River's East Branch. The viaduct was the principal structure on the Boston & Providence's route, and the last to be completed, opening on July 28, 1835. The Hayward's Gazeteer of 1845 noted that the structure was "conceded the most elegant and massive structure of masonry in the United States." Engineer for the railroad and the viaduct was Capt. William Gibbs McNeill (1801-1853). The earliest proposals for the line included inclined planes but an accident on the Granite Railway's plane before work had commenced convinced the railroad of the viaduct's utility. Although a local quarry in Canton supplied foundation stone, Rattlesnake Hill in Sharon supplied most of the finish stonework, much of it displaying stonecutters' marks. The structure is not solid, but is composed of two parallel walls, each five feet thick, separated by an air space of nine feet. At the base of the viaduct, six rounded arches of 8 feet 4 inches in span allow the East Branch to pass beneath, while a town road passes through a larger 22-1/2-foot arch. A second track was

laid on the viaduct in 1860, and in 1910, the New York, New Haven & Hartford Railroad, after repeated expressions of concern for safety on the narrow structure, widened the roadbed by cantilevering out the necessary width. In 1952, a second road arch was cut through the structure.

References:

Harlow, Alvin F., Steelways of New England [New York: Creative Age Press, 1946], 105, 106, 110-112; "Improving a Granite Viaduct," Engineering Record 10 Sept. 1910; Sharon, Massachusetts -- A History [Sharon, MA: Sharon American Revolution Bicentennial Committee, 1976], 146-147

Transmitted by:

Jean P. Yearby, 1984, from data compiled by Peter Stott

ADDENDUM TO
BOSTON AND PROVIDENCE RAILROAD, CANTON VIADUCT
Neponset Street at East Branch of Neponset River
Canton
Norfolk County
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